DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-015159
Date Inspected: 25-Jun-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 700
OSM Departure Time: 1700
Location: Shanghai, China

CWI Name:	Mr. Chen Xi / Mr.Huang min	**CWI Present:**	☑ Yes ☐ No
Inspected CWI report:	☐ Yes ☑ No ☐ N/A	**Rod Oven in Use:**	☐ Yes ☐ No ☑ N/A
Electrode to specification:	☑ Yes ☐ No ☐ N/A	**Weld Procedures Followed:**	☑ Yes ☐ No ☐ N/A
Qualified Welders:	☑ Yes ☐ No ☐ N/A	**Verified Joint Fit-up:**	☐ Yes ☑ No ☐ N/A
Approved Drawings:	☑ Yes ☐ No ☐ N/A	**Approved WPS:**	☑ Yes ☐ No ☐ N/A
		Delayed / Cancelled:	☐ Yes ☑ No ☐ N/A

Bridge No: 34-0006
Component: Orthotropic Box Girder(OBG)

Summary of Items Observed:

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

BAY- 1

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) buttering welding of Traveler Rail 20TR1-031. Welder is identified as 059450. ZPMC Quality Control (QC) is identified as Mr. Xiang Feng Feng. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-1G (1F)-Repair-1.The buttering was been performed as per the Critical Welding Report (CWR) No: B-CWR1568.

ZPMC Personnel performing Heat Straightening for the Traveler Rail (TR) 20TR1-028.Heat straightening was being performed appeared to comply with the Caltrans Engineer approved Applicable HSR Repot# HSR (B)-363 Rev.No:1. ZPMC Quality Control (QC) is identified as Mr. Ai Wei.

BAY- 2

ZPMC Personnel performing Heat Straightening for the Traveler Rail (TR) 20TR1-016.Heat straightening was

being performed appeared to comply with the Caltrans Engineer approved Applicable HSR Repot# HSR (B)-370. ZPMC Quality Control (QC) is identified as Mr. Cai Xiao Fang.

FCAW of weld joint FB3216-001-061. Welder is identified as 067275. ZPMC Quality Control (QC) is identified as Mr. Zhu Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2232-TC-U4b-F.

FCAW of weld joint FB3189-001-058. Welder is identified as 067947. ZPMC Quality Control (QC) is identified as Mr. Zhu Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2232-TC-U4b-F.

BAY- 3

FCAW of weld joint FB3155-001-024. Welder is identified as 214945. ZPMC Quality Control (QC) is identified as Mr. Zhang Yaxu. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B- T-2232-TC-U4b-F.

FCAW of weld joint FB3123-001-018/019. Welder is identified as 217805. ZPMC Quality Control (QC) is identified as Mr. Zhang Yaxu. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2132-3.

BAY- 6

During random in process Random Visual Inspection this QA Inspector observed 2 (Two) number of Crack tacks on Deck Panel weld joint Numbers identified as: DP3109-001-077 and 082 respectively. The “Y” locations are for these defects measured to be approximately 25 and 15 mm respectively from the nearest end of the weld joint. This QA informed to ZPMC Quality Control (QC) identified as Mr. Shu Yang Hua and American Bridge/Fluor (AB/F) QA Inspector identified as Mr. Wang wen bin of the above issue, As per ZPMC QC and AB/F QA the Cracked Tack welds shall be removed by grinding and perform Magnetic Particle Testing (MT) for verifying no more defects prior to start the final welding.
Refer attached photos for additional details.

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 006057.

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG West Jacking Frame weld Component. Total number of welds MT Tested: 31 No’s. The weld designations are review as follows:

1. WJF-0-310,313,324,327,328,331,311,315,326,329.
2. WJF-0-406,409,410,413,424,427,407,411,422,426.

3. WJF-0-287,288,291,294,297,306,307,284,296,305,299.

BAY- 7

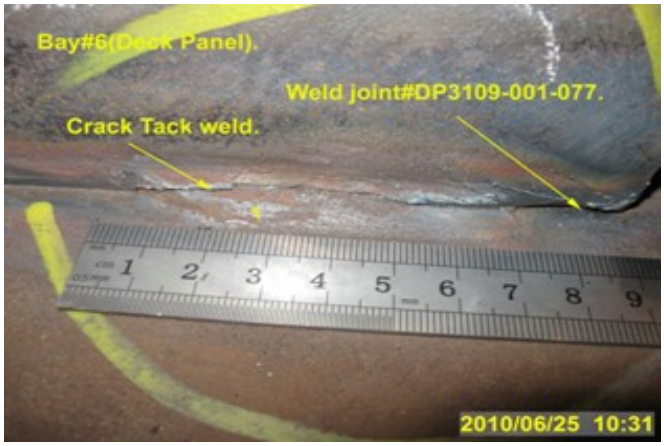
The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 006054.

Visual Testing (VT)

This QA performed Random VT of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. The members are identified as OBG Traveler Rail (TR) weld Components. The TR numbers are as follows:

1. 22TR1-001,002.
2. 22TR2-001,002.
3. 22TR3-001,002,003,004.
4. 22TR4-001,002,003,004.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



WELDING INSPECTION REPORT

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Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer